REMARKS

In the Office Action, the Examiner rejected Claims 1-43, which are all of the pending claims, under 35 U.S.C. §102, and Claims 1, 8, 9 and 39 were further rejected under 35 U.S.C. §112 as being indefinite. More specifically, Claims 1-7 and 10-43 were rejected under 35 U.S.C. §102 as being fully anticipated by an article "Diagnosis and Characterization Of Timing-Related Defects By Time-Dependent Light Emission" (Knebel). Also, Claims 1-3, 6, 7, 14, 15, 28, 32, 33 and 39-41 were rejected as being fully anticipated by U.S. Patent 5,555,201 (Dangelo, et al.); and Claims 1, 8, 9 and 39 were rejected under 35 U.S.C. §102 as being fully anticipated by U.S. Patent 5,251,159 (Rowson).

Independent Claims 1 and 39 are herein being amended to better define the subject matter of these claims.

The rejection of Claims 1, 8, 9 and 39 under 35 U.S.C. §112 is respectfully traversed for the reasons set forth below.

In rejecting these claims under 35 U.S.C. §112, the Examiner argued that the specification indicates that a preferred embodiment of the invention is directed to a simulated version of a PICA slow motion movie, while these claims are, more broadly, directed to a method or means for visualizing circuit operation.

Applicants respectfully note that the claims define the invention, and the specification describes the preferred embodiments of the invention. The claims do not need to be limited to the preferred embodiment disclosed in the specification. Moreover, at several points, the specification does expressly indicate that the invention related, generally, to visualization of integrated circuits. These references can be found, for instance on page 1, lines 5 and 6 and

lines 25-28.

In view of the foregoing, the claims are properly consistent with the specification, and the Examiner is respectfully requested to reconsider and to withdraw the rejection of Claims 1, 8, 9 and 39 under 35 U.S.C. §112.

With respect to the rejections of the claims under 35 U.S.C. §102, Applicants note that the Knebel article is not prior art as to this application. This is so because, first, the article actually was first published in October 1998, less than a year before the filing of this application, and second, the article discloses the work done by the inventors of this application. To establish these facts, Applicants are submitting herewith two Declarations under 35 U.S.C. 1.132.

The first Declaration is from Dr. Knebel, the lead author of the subject article. Dr. Knebel is personally familiar with the circumstances of the publication of the article, and the Declaration shows that article was first published at the International Test Conference, in October 1998. The date, 8/98, at the bottom of the article appears to relate to a code from the Copyright Clearance Center.

The second Declaration is from all of the co-inventors of this application, and this Declaration shows that the Knebel article discloses their work. Thus, the disclosure of their own work cannot be used as a prior art reference against the inventors' application. It is noted that one of the co-inventors has not been available to sign the second Declaration, and Applicants will submit a follow-up copy of the Declaration once all signatures have been obtained.

In light of the above, the Knebel article is not prior art as to this application, and the

Examiner is respectfully requested to reconsider and to withdraw the rejection of Claims 1-7 and 10-43 under 35 U.S.C. §102 as being anticipated by this article.

With regard to Dangelo and Rowson, there are a number of important features of the preferred embodiment of this invention that are not shown in or suggested by these references. One important difference is that these references, whether considered individually or in combination, do not suggest the visualization of the causal relationship information about the expressed device activity. In addition, these prior art patents do not teach a system for visualizing a simulation of optical emissions.

Dangelo, for example discloses a system for visualizing the operation of a circuit by displaying simulation results, and the results may be displayed on a schematic diagram.

Rowson describes a procedure for analyzing simulation results. However, this reference does not address visualization of the causal relationship information about the expressed device activity, or the simulation of optical emission.

Independent Claims 1 and 39 emphasize the above-discussed aspects of the preferred embodiment of this invention.

Specifically, Claim 1, as amended herein, is directed to a method of visualizing internal functioning of operation of an integrated circuit device, and the claim sets forth the step of using a defined representation form to represent an expressed device activity in a visual form that illustrates causal relationship information.

Also, Claim 39 is directed to a system for visualizing behavior of an integrated circuit, and includes means for visualizing a device activity representation as a simulation of optical emissions that may occur as a result of device activity.

These features are of utility because, as discussed in detail in the present application, they each contribute to a design aid that is easy to use and interpret.

Because of the above-discussed differences between Claims 1 and 39 and the prior art, and because of the advantages associated with these differences. Claims 1 and 39 patentably distinguish over the prior art and are allowable. Claims 2-38 are dependent from and are allowable with Claim 1, and Claims 40-43 are dependent from and are allowable with Claim 39. Accordingly, the Examiner is asked to reconsider and to withdraw the rejection of Claims 1-3, 6, 7, 14, 15, 28, 32, 33 and 39-41 as being fully anticipated by Dangelo, et al; and the rejection of Claims 1, 8, 9 and 39 as being fully anticipated by Rowson, and to allow Claims 1-43.

For the reasons advanced above, the Examiner is respectfully requested to reconsider and to withdraw the rejections of Claims 1-43 under 35 U.S.C. §102, and the rejection of Claims 1, 8, 9 and 39 under 35 U.S.C. §112, and to allow Claims 1-43. If the Examiner believes that a telephone conference with Applicants' Attorneys would be advantageous to the disposition of this case, the Examiner is asked to telephone the undersigned.

Respectfully submitted,

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